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DEVELOPMENT AND TRANSFER OF TECHNOLOGIES

Progress report on the implementation of activities under decision 4/CP.7

Note by the secretariat

Summary

This note contains information on ongoing activities of the secretariat in 2002 relating to technology needs assessments, development of a technology information system, establishment of an international information clearing house and networks of technology centres, and consultations with relevant international organizations on their capacities and abilities to support certain activities identified in the technology framework.

At the seventeenth session of the SBSTA, Parties may wish to take note of the information in this document, and provide further guidance to the secretariat with regard to its work on a technology information system, in particular on the establishment of an international information clearing house including a network of technology information centres, with a view to recommending to the COP a draft decision on this subject.

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I. INTRODUCTION

A. Mandate

1. The Conference of the Parties (COP), by its decision 4/CP.7, paragraph 1, adopted the framework for meaningful and effective actions to enhance the implementation of Article 4, paragraph 5, of the Convention contained in the annex to the decision (FCCC/CP/2001/13/Add.1). The framework, referred to hereinafter as the technology framework, covers five key themes and areas for actions: technology needs and needs assessments; technology information; enabling environments; capacity-building; and mechanisms for technology transfer. Specific mandates for each activity carried out by the secretariat under some of these themes are provided below.

B. Scope of the note

2. This note contains information on ongoing activities of the secretariat in 2002 relating to the implementation of the technology framework, in particular on technology needs assessments, development of a technology information system, establishment of an international information clearing house and networks of technology centres, and consultations with relevant international organizations on their capacities and abilities to support certain activities identified in the technology framework.

3. Background information relevant to the issues discussed in this note can be found in the following documents: "Progress report on the development of a technology information system" (FCCC/SBSTA/2001/4), "Report of the technology information expert workshop, Beijing, China, 18–19 April 2002" (FCCC/SBSTA/2002/INF.6), "Report of the expert meeting on methodologies for technology needs assessments, Seoul, Republic of Korea, 23–25 April 2002" (FCCC/SBSTA/2002/INF.7), "Technology information system - submissions from Parties" (FCCC/SBSTA/2002/MISC.12), "Report of the Subsidiary Body for Scientific and Technological Advice (SBSTA) on its sixteenth session, held at Bonn, from 5–14 June 2002" (FCCC/2002/SBSTA/6, annex II[1]), and the "Annual report of the Expert Group on Technology Transfer" (FCCC/SBSTA/2002/9).

C. Possible actions by the SBSTA

4. The SBSTA may wish to take note of the information in this document and, where necessary:

(a) Provide further guidance to the secretariat with regard to its work on a technology information system, in particular on the establishment of an international information clearing house including a network of technology information centres with a view to recommend to the COP a draft decision on this subject;

(b) Urge those Parties included in Annex II to the Convention (Annex II Parties) that have not provided technical and financial assistance, as appropriate, to support the implementation of programmes and activities identified in the technology framework (decision 4/CP.7) and of the programme of work for the biennium 2002–2003 of the Expert Group on Technology Transfer, to do so.

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[1] Appendix II, Expert Group on Technology Transfer, programme of work, 2002–2003.

II. TECHNOLOGY NEEDS ASSESSMENTS

A. Specific mandate

5. The Conference of Parties, by its decision 4/CP.4, urged Parties not included in Annex I of the Convention (non-Annex I Parties), in the light of their social and economic conditions, to submit their prioritized technology needs, especially those relating to key technologies to address climate change in particular sectors of their economies, taking into account state-of-the-art environmentally sound technologies. Recognizing the limited resources of non-Annex I Parties, the COP, by its decision 2/CP.4, directed the Global Environment Facility (GEF) to provide funding to developing countries to identify and submit to the COP their prioritized technology needs.

6. Furthermore, decision 4/CP.7 of the COP encouraged Parties, particularly developing country Parties, to undertake assessments of country-specific technology needs, subject to the provision of resources, as appropriate to country-specific circumstances, from developed country Parties and other developed Parties included in Annex II (FCCC/CP/2001/13/Add.1, decision 4/CP.7, annex, para. 5).

7. At its sixteenth session, the SBSTA requested the secretariat to cooperate with the GEF, the United Nations Development Programme (UNDP), and other relevant organizations and initiatives such as the Climate Technology Initiative (CTI), in their planned activities to develop a simplified and user-friendly handbook on methodologies for technology needs assessments and to report on its findings to the SBSTA at its eighteenth session (FCCC/SBSTA/2002/6, para. 38 (f)).

B. Background

8. At present, only a small number of developing country Parties are able to identify their technology needs; other countries lack the necessary resources, technical skills and methodologies. However, efforts are under way by multilateral institutions and various multilateral and bilateral initiatives to assist developing countries in identifying their technology needs; these efforts served as rich sources of inputs in the development of methodologies for technology needs assessments.

9. To address this concern, the COP, in the annex, paragraph 7, of decision 4/CP.7, requested the Chairman of the SBSTA to organize an expert meeting on methodologies for technology needs assessments. The expert meeting was held in Seoul, Republic of Korea, from 23 to 25 April 2002 (FCCC/SBSTA/2002/INF.7).

C. Discussion

10. The April 2002 expert meeting on methodologies for technology needs assessments drew useful inputs from the experts and the Parties on how to proceed with the development of the methodology. The key messages from the expert meeting were that methodologies for assessing technology needs already exist and have been effectively applied effectively, but they need to be improved to address climate change concerns such as treatment of adaptation technologies, and some countries will need help to use them.

11. The Expert Group on Technology Transfer (EGTT), at its first meeting, elaborated the recommendations from the expert meeting on technology needs assessments and included this issue in its programme of work as contained in appendix II to document FCCC/SBSTA/2002/6. The SBSTA, at is sixteenth session, and the EGTT encouraged the UNDP, the CTI and other international organizations and iniatives that are initiating activities relating to technology needs assessments to pursue these activities in collaboration with the secretariat.

12. As requested by the SBSTA, at its sixteenth session, the secretariat is consulting the UNDP, the CTI and other relevant international organizations and initiatives, on progress of their planned activities relating to technology needs assessments. The UNDP, through the assistance provided by the GEF, and in consultation with the secretariat, the EGTT, the CTI and other international organizations and initiatives, is developing a handbook on technology needs assessments, the CTI together with UNEP and other partners will organize two regional training workshops on technology transfer, one for Asia, from 24 to 26 September 2002 in Beijing, China, and one for Africa, from 14 to 16 October 2002 in Dakar, Senegal. These two workshops will include sections on need assessments methods and technology information. Two other training workshops will be convened in Latin America and the Caribbean and in Eastern Europe in 2003, resources permitting.

13. Currently 60 countries are benefiting from GEF assistance, through the UNDP enabling activities programme under the top-up fund, to conduct technology needs assessments, and so far, 25 countries have completed their assessments. It is expected that, as methodologies and training opportunities became available, more countries will be able to assess and prioritize their technology needs.

D. Issues for consideration

14. Major concerns, that have repeatedly been raised during the workshops, are how the results of these technology needs assessments would be reported and in which format, and how those identified technologies will be financed. The SBSTA may wish to begin to discuss these matters, with a view to seeking advice from the EGTT for its further consideration, at its subsequent sessions.

III. TECHNOLOGY INFORMATION SYSTEM

A. Specific mandate

15. The technology framework requested the secretariat to build on the success of the current work on the technology information system, including that undertaken by the secretariat, in cooperation with the CTI and other relevant organizations, inter alia, to develop a new search engine on the Internet that will facilitate quick access to existing inventories of environmentally sound and economically viable technologies and know-how, including those conducive to mitigating and adapting to climate change.

16. At its fifteenth session, the SBSTA requested the secretariat to continue its work on the technology information system, drawing on links between its work and the work of existing institutions and networks, in particular, on information relating to adaptation technologies; and to explore the feasibility of including information on privately and publicly owned technologies and on joint research and development programmes, and examples of success stories and case studies on technology transfer (FCCC/SBSTA/2001/8, para. 33 (d)).

17. At its sixteenth session, the SBSTA requested the secretariat to initiate an outreach programme with the objective of making the technology information system developed by the secretariat available to the public and making the system more widely known to potential interested users, including private sector and practitioners, and to update the information and maintain the existing technology system (FCCC/SBSTA/2002/6, para. 38 (f) (i and ii)).

B. Background

18. Following a request by the COP, in its decision 4/CP.7 (FCCC/CP/2001/13/Add.1, decision 4/CP.7, annex, para. 10 (c)), the secretariat organized an expert workshop on technology information to review the feedback from Parties on testing the technology information system (TT:CLEAR), and further define user needs for information, criteria for information quality control, technical specifications of the

system and contributions of Parties. The workshop was held in Beijing, China, from 18 to 19 April 2002. The report of the workshop is contained in document FCCC/SBSTA/2002/INF.6 and submissions from Parties on TT:CLEAR are contained in document FCCC/SBSTA/2002/MISC.12.

19. The secretariat's technology information system came on-line in September 2001. By 1 August 2002, some 260 users had registered with the system. The number of users per country is lower for developing countries than for Annex II countries. Users include experts in ministries, research institutions and private industry, media representatives and students.

C. Discussion

20. Since the last progress report was presented to the SBSTA at its fifteenth session, the secretariat has undertaken the following activities in response to the above mandate on the technology information system:

(a) Updating the inventory of technology cooperation projects. This activity included updating relevant AIJ projects and adding projects cited in third national communications of Annex I Parties and initial national communications of non-Annex I Parties. At present some 1,650 projects are stored in the database (more than 450 projects have been added since COP 7);

(b) Adding some success stories and case studies on technology transfer and making them available through the search engine. Various sources of information were used, including the IPCC Special Report "Methodological and technological issues in technology transfer", the CTI publication "Technologies without borders; case studies of successful technology transfer", the GEF project performance reports and publications on experience and lessons learned, and the UNEP publication "Two challenges, one solution: case studies of technologies";

(c) Revising the structure of the projects database to follow the international development markup language (IDML) and the common exchange format for development activities (CEFDA) standard proposals on economic sectors classification and the types of assistance (grant, load, credit, equity investment, donation, other, and multiple), and updating relevant web pages;

(d) Modifying TT:CLEAR search engine interfaces to access information from the redesigned CADDET energy efficiency and renewable energy and GREENTIE web sites. Interfaces for other sites (such as UNEP-maESTro and Google) are under development;

(e) Further developing the classification of adaptation technologies, designing and establishing the adaptation technology database, modifying relevant web pages and populating the database with some mitigation technologies and some coastal adaptation technologies from technical paper "Coastal adaptation technologies" (FCCC/TP/1999/1). Reviewing and updating the database of mitigation technologies, and identifying information gaps and potential sources of information and/or cooperative mechanisms for completing these databases;

(f) Developing an electronic form and support databases to facilitate on-line reporting and updating of information on existing methods, models, and tools that have been used for assessing different technological options conducive to mitigating and adapting to climate change;

(g) Preparing short write-ups for 14 mitigation methods, models and tools and adding to the database the write-ups for 32 methods, models, and tools covering different aspects of adaptation to climate change, presently available on the UNFCCC web site. The methods, models and tools were made available through the search engine and can be searched by type (such as mitigation, adaptation) and sector (such as energy, transport, forestry, agriculture, industry);

(h) Analysing options to exchange information between centres for technology transfer and developing a prototype for searching information on technology cooperation projects based on a peer-to-peer ad hoc network of centres and other relevant information providers and consumers;

(i) Testing the feasibility of localization and transfer of the technology information software to national/regional centres. Key software components were translated into Chinese, the software was transferred to a national centre and one expert from China was trained to install and configure the software. This demonstrates that the software can be translated to other UN languages, resource permitting, and that it can be used by centres to establish their own technology information system;

(j) Revising the structure of the links database, enhancing the search mechanism and updating the relevant web pages. Adding links to national web sites as provided by Parties in their submissions (FCCC/SBSTA/2002/MISC.12) and providing "Quick links" to these sites. Adding more than 100 relevant web-site links submitted by Germany from the GATE project (at present, about 600 links are stored in this database);

(k) Considering comments and recommendations received from Parties and other users and making modifications to the system, as appropriate;

(l) Adding web pages on technology needs assessments, the EGTT, and guidance for using the system;

(m) Presenting TT:CLEAR at the technology workshops held in Asia in April 2002, adding a link to the system on the secretariat's home page and preparing several outreach materials, including a panel on development and transfer of technology and technology information for the UNFCCC kiosk to be presented at the WSSD and COP 8, and a leaflet on the system;

(n) Developing an initial outreach programme for TT:CLEAR. The activities may include preparing a CD-ROM to be distributed in countries lacking access to the Internet, presenting the technology information system at relevant technology events and disseminating information on TT:CLEAR through national focal points. Following the request by the SBSTA at its sixteenth session, the secretariat, in implementing the outreach programme, will present and field test the system during the regional training courses to be convened by CTI in China in September 2002 and in Senegal in October 2002;

21. The submissions from Parties as well as the testing of TT:CLEAR initiated at the fifteenth session of the SBSTA generated good feedback and recommendations for further improvement of the system. However, the number of registered users was considered by Parties at SBSTA 16 as insufficient to draw conclusions about the usefulness of the system. Therefore, the SBSTA endorsed the work programme of the EGTT for the year 2002–2003 which indicates that the group will work closely with the secretariat to conduct a client survey, to prepare a working paper on users' needs, information gaps and to make recommendations for improvements and to assess the effectiveness of the use of TT:CLEAR. A report on the outcome of these activities will be provided to the SBSTA at its nineteenth session.

D. Issues for consideration

22. Updating and maintenance of the technology information system is not included in the present programme budget of the secretariat. The EGTT estimates that these activities will cost about US$ 100,000 over two years (2002–2003). These activities would require support from the supplementary fund.

IV. INTERNATIONAL INFORMATION CLEARING HOUSE AND NETWORK OF TECHNOLOGY INFORMATION CENTRES

A. Specific mandate

23. The technology framework provides for an international information clearing house, including a network of technology information centres, to be established under the auspices of the secretariat by the time of the eighth session of the COP, taking into consideration the conclusions of the SBSTA, at its sixteenth session, on the report of the expert workshop on technology information held in Beijing, China from 18 to 19 April 2002 (FCCC/SBSTA/2002/INF.6).

B. Background

24. During the expert workshop on technology information in Beijing, the participants also considered the establishment of an international information clearing house, including a network of technology information centres.

25. At the workshop, two options for the establishment of the international technology clearing house were considered: (i) a centralized clearing house established under one institution; (ii) a virtual clearing house established primarily by linking and enhancing existing systems, including the secretariat technology information system (TT:CLEAR) and other relevant technology information systems, clearing houses, web sites and networks. The second option was recommended to the SBSTA, for further consideration at its sixteenth session (FCCC/SBSTA/2002/INF.6, para. 52).

C. Discussion

26. The SBSTA, at its sixteenth session, was not able to conclude its consideration of this subject. As endorsed by the SBSTA, the EGTT will work closely with the secretariat to consider the needs, logistical implications and institutional arrangements associated with networking international technology clearing houses and networks of regional and national technology centres, with a view to providing further recommendations to the SBSTA at its subsequent sessions.

D. Issues for consideration

27. The SBSTA may wish to provide further guidance to the EGTT and the secretariat on their future work relating to the establishment of an international technology information clearing house, including the time frame for such establishment.

V. CONSULTATION WITH RELEVANT INTERNATIONAL ORGANIZATIONS

A. Specific mandate

28. By its decision 4/CP.7, the COP requested the secretariat to consult with relevant international organizations, and solicit information on their capacities and abilities to support certain activities identified in the technology framework, and to report on its findings to the SBSTA at its seventeenth session" (FCCC/CP/2001/13/Add.1, decision 4/CP.7, para. 5 (a)).

29. At its sixteenth session, the SBSTA invited the Parties and relevant international organizations in a position to do so, to provide support to the work of the EGTT as proposed in its work programme (FCCC/SBTSA/2002/6, para. 38 (d)).

B. Discussion

30. As mandated, the secretariat has consulted a number of relevant international organizations to solicit information on their capacities and abilities to support certain activities identified in the technology framework. A summary of possible areas for future collaboration with these organizations is contained in the annex to this note. In compiling this information the secretariat has drawn upon the information received during bilateral meetings with these organizations, the presentations made by their representatives during the technology information workshop and the expert meeting on technology needs assessments held in April 2002 in Beijing and Seoul, and the emails exchanged with their concerned authorities.

31. The secretariat also used TT:CLEAR and the Internet to begin searching for on-line information on activities relating to the technology framework. To extend the scope of the consultations, the secretariat is preparing an electronic form on TT:CLEAR to request other organizations to submit their possible contributions.

32. More information may be received from other organizations. Therefore, the secretariat will provide updated information in its oral report to be presented at the seventeenth session of the SBSTA.

Annex
Possible contributions

Organization	Programme/project/activity	Framework theme	EGTT work programme[a]
United Nations Development Programme (UNDP)	Provide support to developing countries to conduct technology needs assessments under the GEF enabling activities top-up fund	Needs assessments	A.1
	Develop a user-friendly handbook for technology needs assessments (in cooperation with CTI)		A.3
United Nations Environment Programme (UNEP)[b]	SANet project (networks of technology transfer practitioners, matchmaking)	Technology information	B.1, B.3, F.4
	Ozone action. Technologies cross-cutting with the Montreal Protocol	Technology information	B.1, B.3
	Global Network for Sustainable Energy	Technology information	B.1, B.3
	International Environmental Technology Centre (Japan) focusing on environmentally sound technologies for urban and freshwater management. Environmentally sustainable technologies for industry projects and processes with particular focus on mitigation technologies.	Technology information	B.1, B.3
	Collaborating Centre on Energy and Environment. Methods, models and tools (according to expertise)	Technology needs assessments, information, capacity-building	
International Energy Agency (IEA) Climate Technology Initiative (CTI)	Organize and conduct four regional workshops to support the work programme of the EGTT to provide capacity-building to developing countries on technology transfer, in particular on activities relating to technology assessment methods and the use of and access to TT:CLEAR. These activities will be conducted in collaboration with the UNEP and the secretariat	Need assessments, technology information, enabling environments and capacity-building	F.4
	Provide support to selected developing countries to conduct needs assessments	Needs assessments	A.1
	Cooperate with UNDP in developing a user-friendly handbook for technology needs assessments	Needs assessments	A.3
	Share information on mitigation technologies in the demonstration phase (CADDET energy efficiency and renewable), directory of organizations (Greentie) and technology transfer (CTI)	Technology information	B.1, B.3

Organization	Programme/project/activity	Framework theme	EGTT work programme[a]
Global Environment Facility (GEF)	Share information on GEF projects under the climate change focal area (ProjectMap). (On going activity)	Technology information	B.1, B.3
Organisation for Economic Co-operation and Development (OECD)	Share information on Official Development Assistance (DAC/CRSo) (On going activity)	Technology information	B.1, B.3
United Nations Industrial Development Organization (UNIDO)	Share information on industry-related activities directed at reducing industrial greenhouse gas emissions (Cleaner Production Centres programme) Provide support to developing countries to conduct industrial technology needs assessments	Technology information Needs assessments	B.1, B.3 A.1
World Bank	Share information on international development activities (Development gateway – access point to many development projects)	Technology information	B.1, B.3

[a] see: Expert Group on Technology Transfer Programme of Work, 2002-2003 (FCCC/SBSTA/2002/6, annex II, appendix II).
[b] Cooperation activities identified during a meeting held at UNEP Division of Technology, Industry and Economics in Paris, June 2002.